

# How does community use the Cathedral Park Beach?



- Where do most people picnic/lounge?
- Where do dogs run?
- Is the area upstream of dock heavily used?
- Is the area downstream of the bridge heavily used?
- Where do people enter the water?
- How far out do people wade in the water?



Sanabria Park



March 23, 2021

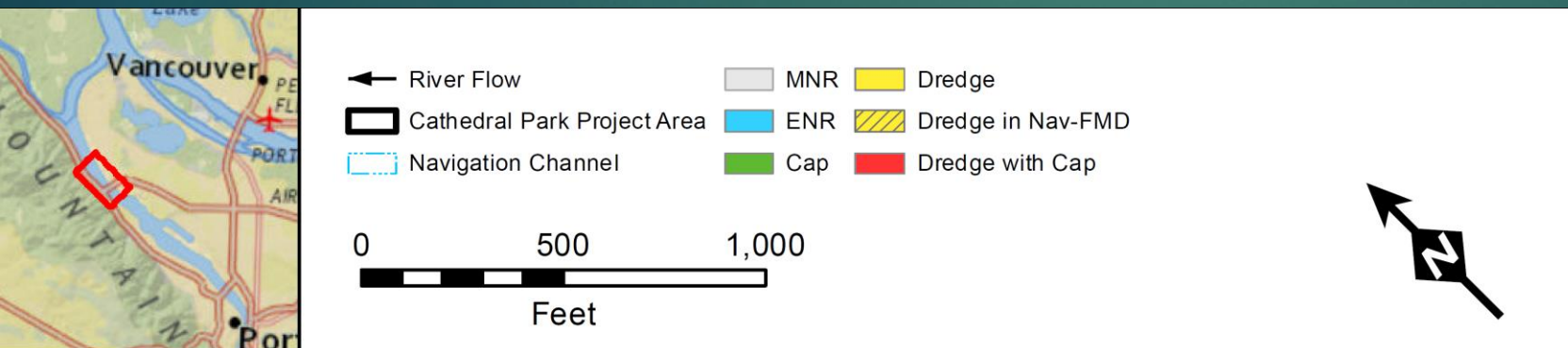
# *Welcome!*

## Cathedral Park Project Area Working Group

**March Meeting!**

# Cathedral Park Project Area

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Source Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

# Introductions!

- ▶ **Laura will introduce existing members!**
- ▶ **For new members, please consider sharing:**
  - ▶ Your **name**
  - ▶ Your **organization** or **affiliation** ('interested community member' is just fine!)
  - ▶ Your **preferred pronouns** (such as: she/her/hers, he/him/his, they/their/theirs)
  - ▶ Your **main reason** for joining this Cathedral Park Project Area Working Group 😊

# Agenda for Today

- ▶ **High level recap** of February 24<sup>th</sup> meeting
- ▶ **Discuss** additional information on EPA's Incremental Sampling approach for the Cathedral Park Project Area
- ▶ **Discuss** educational activity for EPA's Cathedral Park Project Area Sampling work
- ▶ **Summarize & Discuss Next Steps** for this Working Group
  - ▶ Schedule April meeting (if needed)

 **Sharing the virtual**  
 **space**  



# Cathedral Park Project Area Working Group

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## Feb. 24<sup>th</sup> High Level Meeting Overview

Feb. 24 <sup>th</sup> Working Group Topic	Summary
<b>Overview of Purpose and Future</b> for Cathedral Park Project Area Working Group	<ul style="list-style-type: none"><li>• <b>Purpose:</b> Discuss community education and engagement opportunities for EPA's initial sampling work at the Cathedral Park Project Area (planned to start in Spring 2021)</li><li>• <b>Future:</b> Once EPA enters into an agreement with a working party or parties for the Cathedral Park Project Area, the future of this group is uncertain.</li></ul>
<b>Contracting discussion</b> by EPA's Contractor CDM Smith	<ul style="list-style-type: none"><li>• Discussion of CDM Smith's role in the Portland Harbor Superfund Site</li><li>• CDM Smith's equity indicators in the procurement process</li><li>• CDM Smith's subcontracting approach</li></ul>
<b>Discussion of EPA's Initial Sampling Work</b> at the Cathedral Park Project Area and <b>specific goals for this working group.</b>	<p><b>EPA heard that working group members wanted:</b></p> <ol style="list-style-type: none"><li>1. More information about EPA's incremental sampling approach</li><li>2. To feel confident about the sampling data and findings</li><li>3. Clear communication of data results</li><li>4. Ability for this working group to inform &amp; develop educational activities related to EPA's sampling at the Cathedral Park Project Area</li><li>5. Review of what EPA knows to-date about health risks at the Cathedral Park Project Area</li></ol>

# EPA's Incremental Sampling Approach

By the end of this section, we hope that working group members will:

- ✓ Understand the concept of incremental sampling
- ✓ Understand why incremental sampling is the best approach for the Cathedral Park beach
- ✓ Help us (EPA) better understand how people use the Cathedral Park beach geographically
- ✓ Help us (EPA) consider how to define the decision units at the Cathedral Park beach

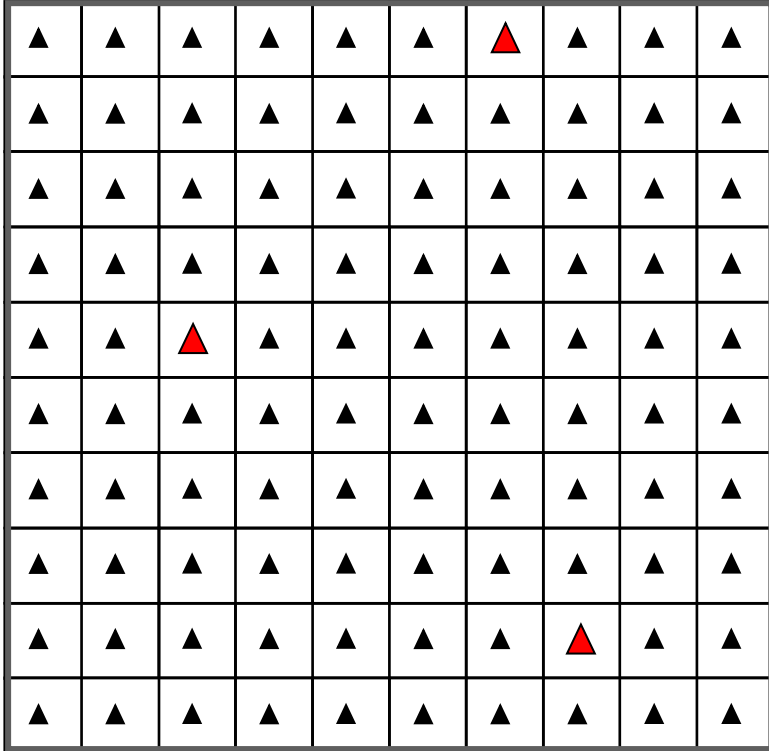
# Why use Incremental Sampling Methodology (ISM) on the Cathedral Park Beach?

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- Incremental samples are structured samples that provide an unbiased, reproducible estimate of the mean of a given volume of soil (e.g., decision unit). **Provides certainty of the "average" concentration.**
- **Purpose:** Gain **high level of confidence** that we understand the current level of contaminants that people who use the beach are exposed to over a long time period.



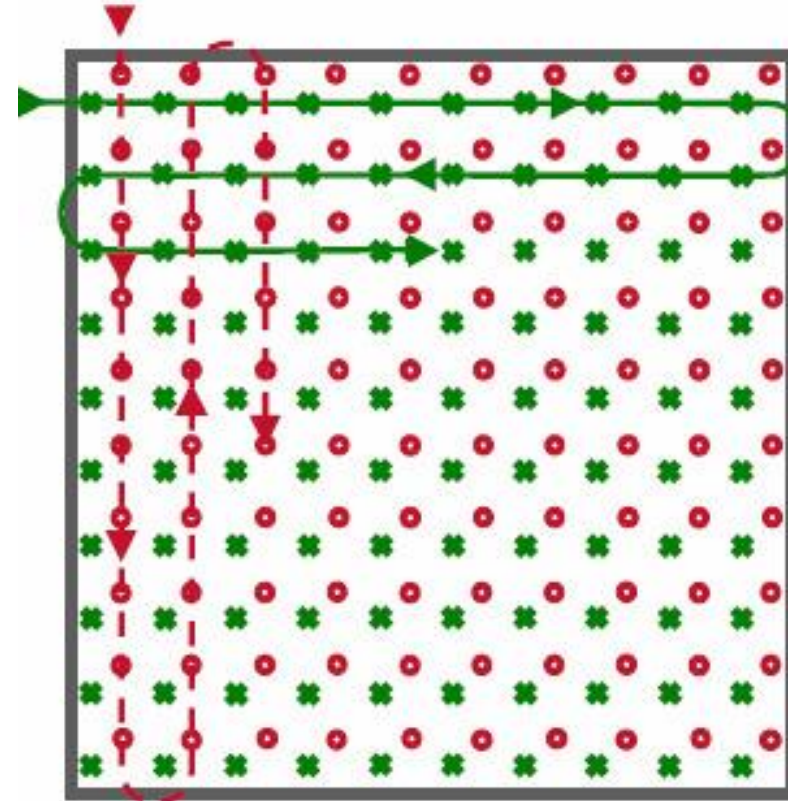
# Why use Incremental Sampling Methodology (ISM) on the Cathedral Park Beach?



## Discrete Samples:

The samples are collected from a single location.

*The difference between traditional samples and incremental samples.*



## Incremental Samples:

An incremental sample is assembled from a large number (i.e., 30-100) of samples of equivalent size/mass (increments) collected across the decision unit.

# Drying an Incremental Sample

- Material is spread out on trays to dry.
- Allows material to be thoroughly separated and mixed
- After drying, the clumps are manually broken apart.



**Photo Source:** Strategic Environmental Research and Development Program

# R10 Incremental Sampling Methodology Lab

## Equipment: Ro-Tap Sieve Shaker

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This allows us to separate out specific grain sizes and can be used to remove gravel or target the ingestible fraction of soil.



## 2-Dimensional Japanese slab cake sub-sampling setup (after pulverizing/drying) – R10 lab



# Example of a sampled 2-D Japanese slab cake – R10 lab



# How does community use the Cathedral Park Beach?



Photo Source: Google Earth

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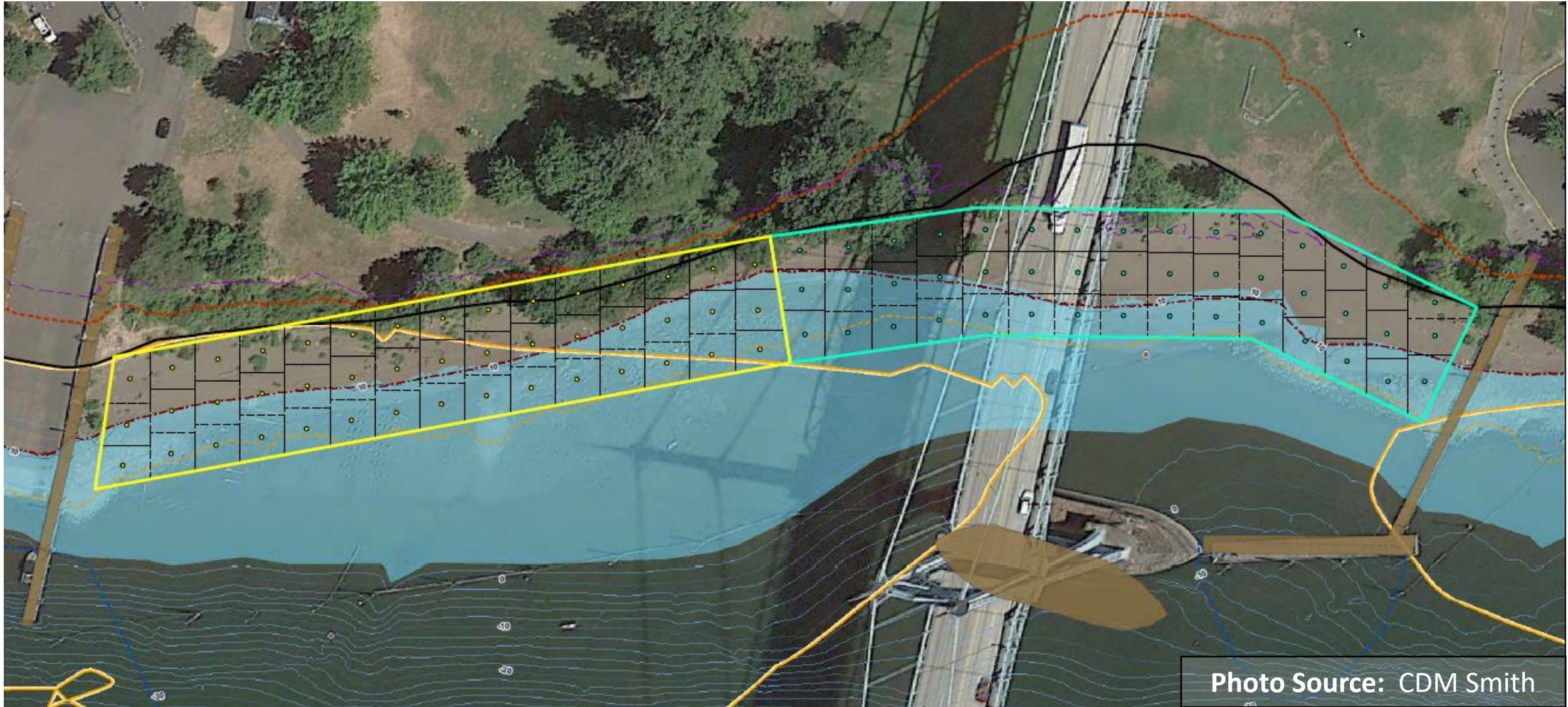


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## Option 1: 2 sample areas, 3 replicates in each



# Option 2: 3 sample areas, 3 replicates in cyan, 2 replicates in dark blue, single incremental sample in yellow.

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As we increase the number of sample areas, we reduce replicates, and therefore reduce certainty.

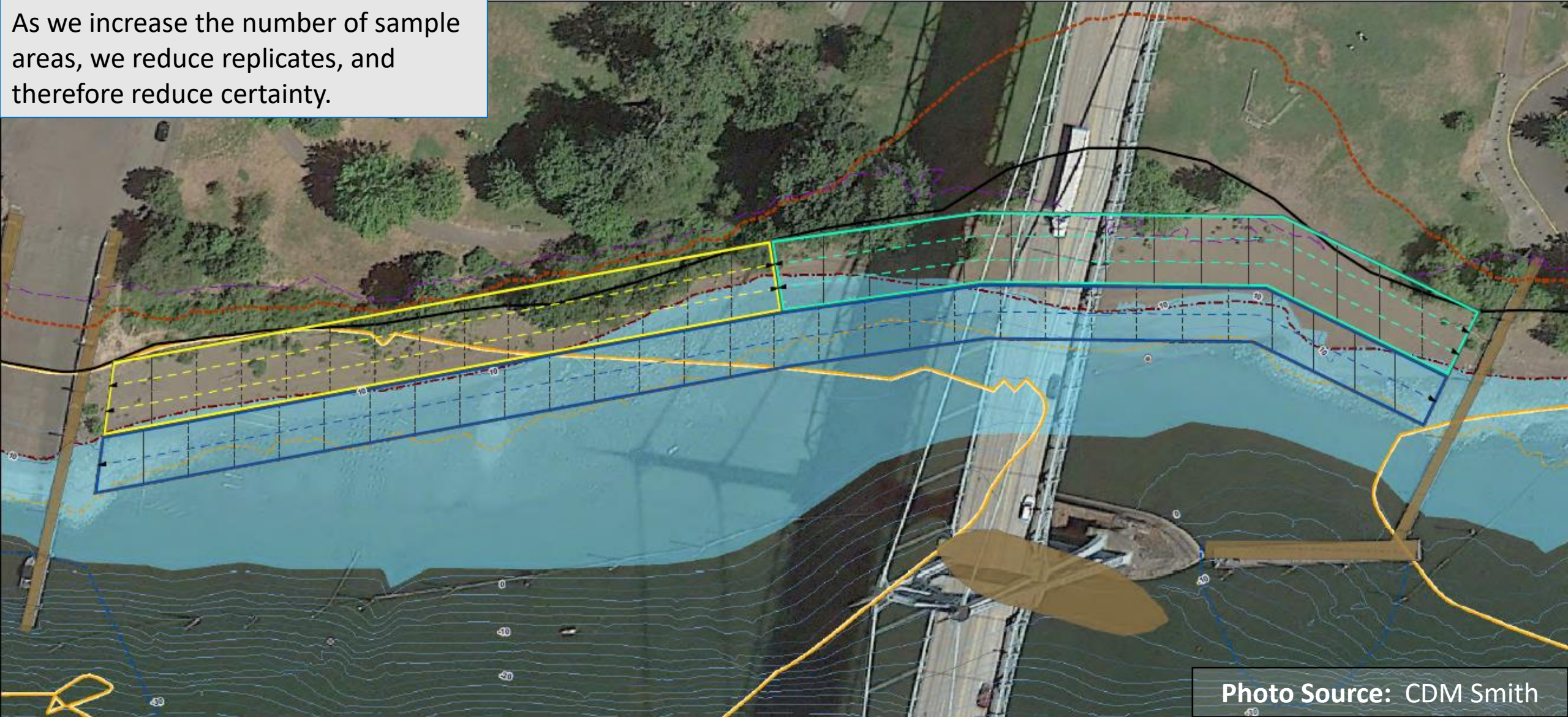
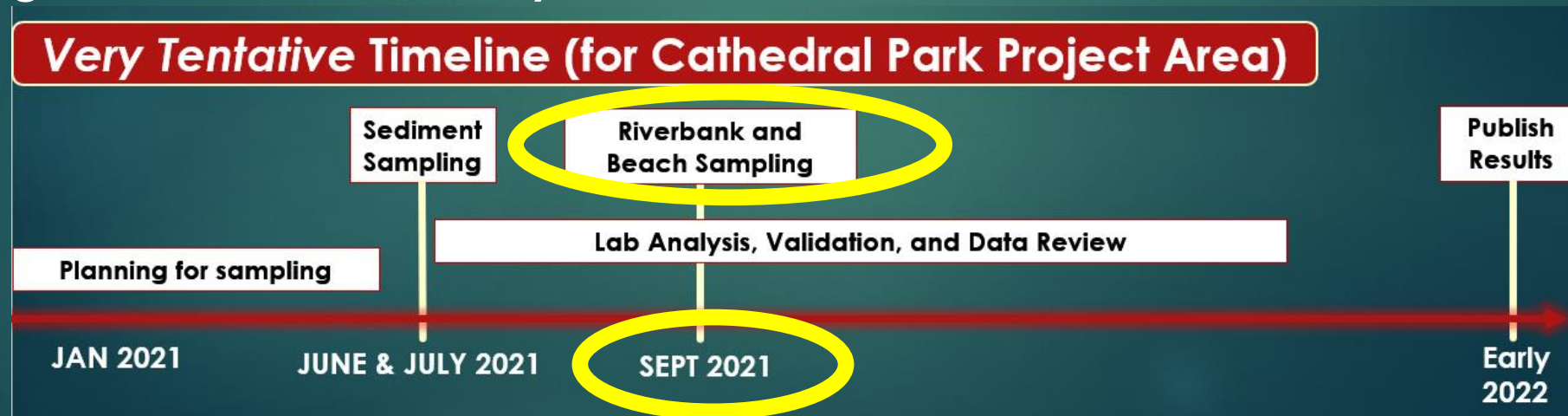


Photo Source: CDM Smith

# Educational Activity Discussion!

## *Cathedral Park Project Area*

- 1. Audience for educational activity.** Who does the working group want to focus/tailor this educational activity for?
- 2. Goal of the educational activity.** What goal or goals does this working group want to have for the audience of this educational activity? Some example goals:
  - Educate people about EPA's sampling work.
  - Educate people about the Portland Harbor Superfund Site.
- 3. Timing of educational activity**



Now, let's **brainstorm** some educational activity ideas!

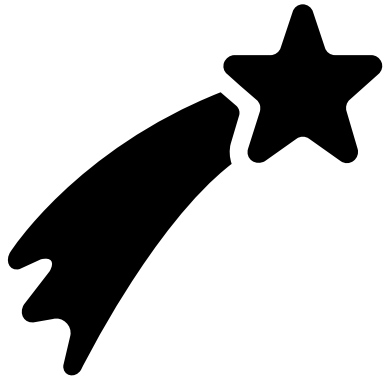
# Idea: On-Site Educational Activity

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## R10 Incremental Sampling Methodology: Field Subsampling



# Summarize + Discuss Next Steps



- ✓ Action Items?
- ✓ Proposed Topics for Next Meeting?
  - ☐ Update on draft EPA Sampling Plan (~mid April)?
  - ☐ Continue discussion and development of educational activity?
- ✓ File Viewing & Sharing Update (Lucila)
- ✓ Schedule Next Meeting?

**Thank You!**